

1     WHAT IS CLAIMED IS

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1. A user support system for cryptographic communication comprising:

key storage means for storing keys used for deciphering;

10     deciphering means for deciphering an enciphered communication text into a deciphered communication text using a key; and

control means for starting said deciphering means only when an input communication text is the enciphered communication text and for supplying said key that is  
15     necessary for the deciphering in said deciphering means by retrieving said key from said key storage means.

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2. The user support system as claimed in claim 1, which further comprises:

receiver means for receiving said input  
25     communication text and for supplying said input communication text to said control means; and

output means for outputting said deciphered communication text obtained from said deciphering means,

30     said control means including means for determining whether said input communication text is the enciphered communication text or a normal communication text.

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3. The user support system as claimed in

1 claim 2, wherein said receiver means, said key storage  
means, said deciphering means, said control means and  
said output means form a deciphering unit.

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4. The user support system as claimed in  
claim 2, which further comprises:

10 communication text storage means for storing input  
communication texts when received; and  
timer means for determining periodical accesses to  
said communication text storage means via said control  
means to retrieve the input communication text from  
15 said communication text storage means if stored so that  
the input communication text retrieved from said  
communication text storage means is input to said  
receiver means,  
said communication text storage means being  
20 provided for use in common within a network system to  
which said user support system belongs.

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5. The user support system as claimed in  
claim 2, which further comprises:

signature check means for making a signature check  
with respect to said deciphered communication text  
30 obtained from said deciphering means and for outputting  
a signature check result,  
said output means outputting said signature check  
result from said signature check means.

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1           6. The user support system as claimed in  
claim 5, which further comprises:  
          communication text storage means for storing input  
communication texts when received; and  
5           timer means for determining periodical accesses to  
said communication text storage means via said control  
means to retrieve the input communication text from  
said communication text storage means if stored so that  
the input communication text retrieved from said  
10          communication text storage means is input to said  
receiver means,  
          said communication text storage means being  
provided for use in common within a network system to  
which said user support system belongs.

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          7. The user support system as claimed in  
20          claim 6, wherein said communication text storage means  
stores the deciphered communication text obtained in  
said deciphering means and the signature check result  
from said signature check means when the signature  
exists.

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          8. The user support system as claimed in  
30          claim 5, wherein said signature check means makes the  
signature check while said deciphering means outputs  
the deciphered communication text under a control of  
said control means.

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1           9. The user support system as claimed in  
claim 1, which further comprises:  
          enciphering means for enciphering a communication  
text into an enciphered communication text which is to  
5   be transmitted using a key,  
          said key storage means further storing keys used  
for enciphering,  
          said control means starting said enciphering means  
only when an input communication text is the  
10   communication text to be transmitted by a cryptographic  
communication and for supplying said key that is  
necessary for the enciphering in said enciphering means  
by retrieving said key from said key storage means.

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          10. A user support system for cryptographic  
communication in a network system in which a first  
20   system and a second system are connected via an  
external network, said user support system comprising:  
          an enciphering unit, provided in the first system,  
enciphering a communication text to be output to the  
external network,  
25   said enciphering unit comprising:  
          a first receiver receiving the communication  
text which is made in the first system and is to be  
transmitted via the external network;  
          a first key storage storing keys necessary  
30   for a cryptographic communication;  
          a first key retrieving part retrieving a key  
from said first key storage based on a destination of  
the communication text;  
          an enciphering part enciphering the  
35   communication text into an enciphered communication  
text using the key retrieved by said key retrieving  
part; and

1                   a first transmitter transmitting the  
enciphered communication text from said enciphering  
part to the external network.

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11. The user support system as claimed in  
claim 10, wherein the first system forms an internal  
10 network system, and said enciphering unit is provided  
in an arbitrary equipment within the internal network  
system.

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12. The user support system as claimed in  
claim 11, wherein said arbitrary equipment is selected  
from a group consisting of a terminal equipment within  
20 the internal network system, and a network connecting  
equipment within the internal network system and  
connecting the first system to the external network.

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13. The user support system as claimed in  
claim 10, wherein the first system forms an internal  
network system, said enciphering unit is provided in a  
30 network connecting equipment connecting the first  
system to the external network, and said enciphering  
unit automatically enciphers all communication texts  
output from the first system to the external network.

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1                   14. The user support system as claimed in  
claim 10, wherein said first key storage stores a  
common key that is used in common within the first  
system, and said enciphering unit automatically  
5   enciphers the communication text using the common key.

10                   15. The user support system as claimed in  
claim 10, which further comprises:  
                  a deciphering unit, provided in the second system,  
deciphering the enciphered communication text input via  
the external network,  
15                said deciphering unit comprising:  
                  a second receiver receiving a communication  
text input via the external network;  
                  a deciphered mail extracting part determining  
whether the communication text received by said second  
20                receiver is an enciphered communication text or a  
normal communication text and extracting the enciphered  
communication text;  
                  a second key storage storing keys necessary  
for the cryptographic communication;  
25                a second key retrieving part retrieving from  
said second key storage a key that is necessary for  
deciphering the enciphered communication text when said  
deciphered mail extracting part extracts the enciphered  
communication text;  
30                a deciphering part deciphering the enciphered  
communication text into a deciphered communication text  
using the key retrieved by said second key retrieving  
part; and  
                  a second transmitter transmitting the  
35                deciphered communication text from said deciphering  
part to a destination of the deciphered communication  
text within the second system.

1           16. A user support system for cryptographic  
communication in a network system in which a first  
system and a second system are connected via an  
external network, said user support system comprising:  
5           a deciphering unit, provided in the second system,  
deciphering the enciphered communication text input via  
the external network,  
          said deciphering unit comprising:  
          a receiver receiving a communication text  
10          input via the external network;  
          a deciphered mail extracting part determining  
whether the communication text received by said  
receiver is an enciphered communication text or a  
normal communication text and extracting the enciphered  
15          communication text;  
          a key storage storing keys necessary for the  
cryptographic communication;  
          a key retrieving part retrieving from said  
key storage a key that is necessary for deciphering the  
20          enciphered communication text when said deciphered mail  
extracting part extracts the enciphered communication  
text;  
          a deciphering part deciphering the enciphered  
communication text into a deciphered communication text  
25          using the key retrieved by said key retrieving part;  
and  
          a transmitter transmitting the deciphered  
communication text from said deciphering part to a  
destination of the deciphered communication text within  
30          the second system.

35           17. The user support system as claimed in  
claim 16, wherein the second system forms an internal  
network system, and said deciphering unit is provided

1 in an arbitrary equipment within the internal network  
system and automatically deciphers the enciphered  
communication text input from the external network to  
output the deciphered communication text to the  
5 destination within the internal network system.

10 18. The user support system as claimed in  
claim 17, wherein said arbitrary equipment is selected  
from a group consisting of a terminal equipment within  
the internal network system, and a network connecting  
equipment within the internal network system and  
15 connecting the second system to the external network.

20 19. The user support system as claimed in  
claim 16, wherein the second system forms an internal  
network system, said deciphering unit is provided in a  
network connecting equipment connecting the second  
system to the external network, and said deciphering  
25 unit automatically deciphers all enciphered  
communication texts input from the external network to  
output the deciphered communication texts to the  
destination within the internal network system.

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35 20. The user support system as claimed in  
claim 16, wherein said key storage stores a common key  
that is used in common within the second system, and  
said deciphering unit automatically deciphers the  
enciphered communication text using the common key.